



## User Manual

**MIG/CXCL9 (MIG/CXCL9) (Human)**

**Cat. No. HECXP-09012**

**Description:**

CXCL9, a member of the  $\alpha$  subfamily of chemokines that lack the ELR domain, was initially identified as a lymphokine-activated gene in mouse macrophages. The CXCL9 gene is induced in macrophages and in primary glial cells of the central nervous system specifically in response to IFN- $\gamma$ . CXCL9 has been shown to be a chemoattractant for activated T-lymphocytes and TIL but not for neutrophils or monocytes. The human CXCL9 cDNA encodes a 125 amino acid residue precursor protein with a 22 amino acid residue signal peptide that is cleaved to yield a 103 amino acid residue mature protein. CXCL9 has an extended carboxy-terminus containing greater than 50% basic amino acid residues and is larger than most other chemokines. A chemokine receptor (CXCR3) specific for CXCL9 and IP-10 has recently been cloned and shown to be highly expressed in IL-2-activated T-lymphocytes.

**Source:**

*Escherichia coli*

**Unit:**

20  $\mu$ g

**Reconstitution:**

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at  $< -20^{\circ}\text{C}$ . Further dilutions should be made in appropriate buffered solutions.

**Formulation:**

Lyophilized from a 0.2  $\mu$ m filtered concentrated solution in 20 mM PB, pH 7.4, 50 mM NaCl.

**Storage:**

This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.

**Molecular Weight:**

Approximately 11.7 kDa, a single non-glycosylated polypeptide chain containing 103 amino acids.

**Endotoxin:**

Less than 1 EU/μg of MIG/CXCL9 as determined by LAL method.

**Usage:**

This material is offered by Cyagen Biosciences for research, laboratory or further evaluation purposes. FOR RESEARCH USE ONLY. NOT INTENDED FOR ANY ANIMAL OR HUMAN THERAP EUTIC OR DIAGNOSTIC USE.

**Biological Activity:**

The biologically active determined by a chemotaxis bioassay using human peripheral blood T-lymphocytes is in a concentration range of 10-100 ng/mL.

**Physical Appearance:**

Sterile filtered white lyophilized (freeze-dried) powder.

**AA Sequence:**

TPVVRKGRCS CISTNQGTIH LQSLKDLKQF APSPSCEKIE IIATLKNGVQ  
TCLNPDSADV KELIKKWEKQ VSQKKKQKNG KKHQKKKVLK VRKSQRSRQK KTT

**Purity:**

> 97% by SDS-PAGE and HPLC analyses.

Material Safety Data Sheets (MSDSs) are available upon request.

The Certificate of Analysis (COA), which provides detailed quality control information for each product, is also available at the Cyagen website.

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